

**Notice of Allowability**

Application No.

10/825,158

Examiner

Stephen Elmore

Applicant(s)

SERIZAWA ET AL.

Art Unit

2185

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Request for Continued Examination (RCE) filed November 29, 2005.
2. ☒ The allowed claim(s) is/are 2-10 renumbered as 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/29/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_.
7. ☒ Examiner's Amendment ~~XXXXXXXXXX~~
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

  
**STEPHEN C. ELMORE**  
**PRIMARY EXAMINER**

***EXAMINER'S AMENDMENT and REASONS FOR ALLOWANCE***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview and communication with Applicant's attorney, Mr. Daniel Stanger, Reg. No. 32,846, on August 19, 2005, prior to the Request for Continuation filed November 29, 2005.
3. The application has been amended as follows:

**IN THE CLAIMS**

Claim 2, line 6, replace "based on the request" with --in response to a request--;

Claim 2, lines 6-7, delete "to the effect";

Claim 3, line 2, delete "to the effect" and replace "a predetermined" with --the predetermined--;

Claim 3, at lines 2-3 and also at line 8, replace "a virtual volume" with --the virtual volume--;

Claim 4, line 3, replace "a virtual volume" with --the virtual volume--;

Claim 8, lines 2-3, replace "the system file" with --the file system--.

**IN THE ABSTRACT**

Replace the existing Abstract with the new Abstract which is attached as a separate sheet.

***REASONS FOR ALLOWANCE***

4. The following is an examiner's statement of reasons for allowance:

In independent claim 2, directed towards a system for storing data, the following features taken in combination with the remaining limitations of the independent claim are not found in and or are not obvious in view of the prior art of record,

"wherein said virtualization apparatus issues, in response to a request from said computer, a notice that a predetermined size of a virtual volume has been allocated to said computer" and "converts the access request received from said computer to an access request addressed to a storage device having the storage areas allocated to said virtual volume, and transmits the access request to said storage device".

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5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Elmore whose telephone number is (571) 272-4436. The examiner can normally be reached on Mon-Fri from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 17, 2006

  
**STEPHEN C. ELMORE**  
**PRIMARY EXAMINER**

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**Abstract**

A system for storing data includes a virtualization apparatus coupled to a computer and to a plurality of storage devices. In response to a request from the computer, the virtualization apparatus issues a notice that a predetermined size of a virtual volume has been allocated to the computer. Upon receiving an access request issued from the computer to the virtual volume, the virtualization apparatus allocates storage areas existing in the plurality of storage devices to the virtual volume, converts the access request received from the computer into an access request addressed to a storage device having the storage devices allocated to the virtual volume, and transmits the converted access request to the storage device.